

METHOD AND SYSTEM FOR NETWORK PROCESSOR SCHEDULING OUTPUTS USING QUEUEING

5 Abstract of the Disclosure

A system and method of moving information units from a network processor toward a data transmission network in a prioritized sequence which accommodates several different levels of service. The present invention includes a method and system for scheduling the egress of processed information units (or frames) from a network processing unit according to stored priorities associated with the various sources of the information units. The priorities in the preferred embodiment include a low latency service, a minimum bandwidth, a weighted fair queueing and a system for preventing a user from continuing to exceed his service levels over an extended period. The present invention includes a weighted fair queueing system where the position of the next service in a best efforts system for using bandwidth which is not used by committed bandwidth is determined based on the length of the frame and the weight of the particular flow. A “back pressure” system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold.